

doctors tend to provide it, although the kind of advice depends both on the doctor's religious beliefs and those of the patient.

A third general theme... is that the basic disagreement among doctors is on the means for achieving family planning, and this disagreement is based not on medical but primarily on religious grounds.

This interesting report is primarily not a medical document. It is a sociological assessment of the extent to which non-Roman Catholic in contrast with Catholic, practitioners at a particular date in the late fifties were in fact helping or not helping their patients in contraceptive matters. Much in the report is saddening but encouragement may be taken from the evidence that the younger doctors are considerably the more liberal and helpful:

to some extent they represent the influence of new trends in medical education that seek to broaden the scope of the physician's responsibility for the patient's general well-being.

G. C. L. B.

BIOCHEMISTRY

Garrod's *"Inborn Errors of Metabolism."* Reprinted with a Supplement by H. Harris, Oxford Monographs on Medical Genetics. London, 1963. Oxford University Press. Pp. xi + 207. Price 42s.

GARROD'S *Inborn Errors of Metabolism* has been an extraordinary book. In two periods of biochemical research has it been a rallying point and a far reaching inspiration. The concept that metabolism proceeds by a very large number of steps in each of which a compound is altered in one respect, and that each of these alterations is catalyzed by one specific enzyme, has been the main theme of biochemists in the 1930s and 1940s, when the metabolic cycles were elaborated. Under the influence of Garrod's pioneer work the one gene one enzyme concept related these cycles of metabolism to their inheritance. In the last years our precise knowledge of the structure of the abnormal haemoglobins and of their inheritance has further extended these ideas and, for example for the haemoglobins, genes have been related to the inheritance of the different polypeptide chains which must combine to form a haemoglobin molecule. *Inborn Errors of Metabolism* has long been out of print

and the Oxford University Press has rightly chosen Garrod's work for its first Monograph on Medical Genetics. It is intended to publish a series, and four other monographs are being prepared: on the genetics of locomotor disorders by C. O. Carter and T. J. Fairbank; neurological disorders by R. T. C. Pratt; mental disorders by Eliot Slater and Valerie Cowie and of gastrointestinal disorders by R. B. McConnell.

The present monograph is more than a mere reprint. Professor H. Harris writes a brief biographical introduction and more than a third of the book consists of a contribution by him entitled "The Inborn Errors To-day"—a superb review of "the avenues along which the study of inherited disease and of human biochemical variation have advanced since Garrod". Thus the owner of the book will have the advantage of having at hand at the same time the beginning and the outcome of Garrod's work. There is also reprinted Garrod's famous article from the *Lancet* (1902) ii, 1616 (abridged) "The Incidence of Alkaptonuria: a Study in Chemical Individuality" (what a magnificent concept to coin in 1902!!), and a bibliography of Garrod's writings beginning at the age of twenty-one with the Johnson Memorial Prize essay of 1879 on "The Nebulae: a Fragment of Astronomical History"—and "A Visit to the Leper Hospital at Bergen (Norway)"—St. Bartholomew's Hospital Reports, 1884, and steadily continuing until 1936 when it ends with an article in the *Quarterly Journal of Medicine* on Congenital Porphyria.

This literary and scientific feast can be obtained for 42s.

H. LEHMANN

ZOOLOGY

Enders, Allen C. (Editor). *Delayed Implantation*. New York and London, 1963. University of Chicago Press for William Marsh Rice University. Pp. x + 318. Price 63s.

IN MOST MAMMALS of which we have sufficient knowledge, the developing egg implants promptly in the endometrium of the uterus soon after reaching the blastocyst stage. In a surprising diversity of species, however, the blastocyst can remain free within the uterus in a state of retarded or suspended development for variable